

# White-tailed deer



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Mule deer



White-tailed deer

Of all North America's big game animals, the white-tailed deer (*Odocoileus virginianus*) is the most widely distributed and the most numerous. Its range extends from the southern tip of the continent northward well into the boreal, or northern coniferous, forest. In southern Canada, the white-tailed deer can be found from Cape Breton Island westward to south-central British Columbia.

There are 30 recognized subspecies of the white-tailed deer in North America. In general, these subspecies range in size from the large, robust specimens in the northern part of the range to smaller deer, such as the tiny Florida Key deer and the little Coues deer of New Mexico and Arizona, in the south. Full-grown male deer frequently exceed 38 inches at shoulder height and 250 pounds in weight, with exceptional individuals weighing up to 400 pounds in the northern part of their range. In comparison, the Key deer of Florida rarely exceeds a height of 21 inches at the shoulder and is proportionately lighter in weight.

Only three subspecies of white-tailed deer are found in Canada. The northern white-tailed deer is found throughout eastern Canada, from about the Ontario-Manitoba border eastward to Cape Breton. The brushy draws, parklands, and forest fringes of the prairies, westward to the foothills of the Rockies, are inhabited by the Dakota white-tailed deer. The tawny northwestern white-tailed deer is found in southeastern British Columbia, occasionally straying down the eastern slopes of the continental divide into Alberta.

#### General description

Some parts of the western range of the white-tailed deer are shared by its somewhat stockier and heavier cousin, the mule deer (*Odocoileus hemionus*), but the two types of deer are readily distinguished by their appearance and habits. The characteristic "flag" of the white-tailed deer – upraised tail revealing a stark white underside

and white buttocks, as it dashes away – is an unmistakable feature. Should it choose to escape detection, it is capable of "sneaking" inconspicuously through sparse cover with head and tail held low. The smooth-flowing gallop of the white-tailed deer contrasts sharply with the stiff-legged, bouncing gait which has earned the mule deer the descriptive term "jumping deer" or "jumper" in the Prairie Provinces. The ears of the white-tailed deer are relatively small compared to the conspicuously large, mule-like ears which have given the mule deer its name.

The antlers of the mature male white-tail consist of a forward-curving main beam from which single points project upward and often slightly inward. The mule deer, on the other hand, has branching antlers which divide and redivide into paired beams and points.

#### Life history

The spotted, wobbly legged fawns, weighing from four to seven pounds at birth, are born in late spring. While birth may take place from late March to early August, most fawns are born during the last week of May or the first week of June. Twin fawns are the rule, although single births are quite common. Triplets are not uncommon but quadruplets occur only rarely. Although the newborn fawn can get to its feet within minutes, and very soon takes its first nourishment from the doe's rich milk, it remains relatively feeble during the first two weeks of its life. It lies virtually in hiding, left unattended by the doe for hours at a time. The natural camouflage of its spotted coat and its almost scentless condition provide excellent natural protection. The doe returns at intervals to suckle the fawn.

It is during these first two or three weeks that people sometimes chance to find fawns in their lonely hiding places and, mistakenly believing they have been deserted by their mothers, carry them home to a life of captivity. In fact, a doe will rarely desert her fawn, and the little animals should not be touched.

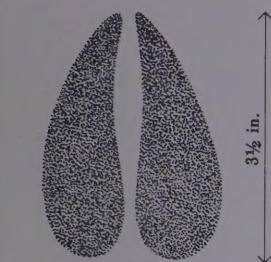
As the fawn grows stronger it begins to follow the mother about during her feeding and soon learns to supplement its milk diet by nibbling on succulent vegetation. The doe, meantime, like other adult members of the deer herd, has been feeding voraciously on new spring vegetation. She has entered the spring period in lean condition and with a shabby, tattered winter coat. Gradually the coarse, grey winter coat is replaced by the fine, reddish summer coat. Improved food supply, consisting of leafy material from a variety of woody plants, forbs, and grasses, and including such delicacies as fiddleheads, mushrooms, and blueberries, results in both doe and fawn becoming sleek and sturdy by midsummer.

In the early spring the antlers of the male begin to show as twin, dark protusions from the frontal bones of the head. Growth of the antlers and regaining of body weight continue rapidly

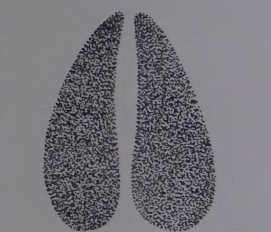




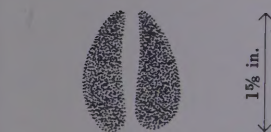
Buck, doe and fawn tracks, comparative sizes



Buck



Doe



Fawn

Tracks showing dragging feet of male in rut



through the late spring and early summer. Unlike true bone which has its internal supply of blood vessels and nerves, antlers are nourished by a tender external covering of "velvet" tissue which gives them a bulbous, distended appearance. The shortening days of late summer terminate growth of the antlers. The velvet dries and begins to slough off, revealing the hard, bony tissue of the antler. Shedding of the velvet is hastened by bucks rubbing their antlers against brush and small trees. The antlers are usually shed in January.

White-tailed deer are truly magnificent specimens in the early autumn. Their bodies are rounded out by reserves of fat stored for the lean months ahead. The new, thick, winter coat exaggerates the thickness and sturdiness of the body. Fawns have lost their spots and are now short-faced, smaller replicas of their parents. Late October and early November bring on the breeding season. Bucks with swollen necks travel almost incessantly, searching out the does and engaging in mock battles with their rivals. Sometimes a real battle develops, and occasionally the antlers of the combatants become hopelessly entangled, leaving both to die slowly.

The autumn brings another change which is of great significance to the life of the white-tailed deer. Summer's lush vegetation is now brown and dry. The leaves have fallen. Until next spring, when the new growth starts, they must depend for food on the twigs and buds which are within their reach.

Abundant food makes almost any forested or brushy area suitable for summer occupancy, but as snow deepens, the deer concentrate in areas which provide food and shelter from storms and deep snow. Sometimes the move from summer to winter range requires traveling many miles.

Even the most favourable winter concentration areas have a limited food supply. If there are too many deer using the area, the most nutritious food disappears rapidly, leaving foods of only marginal value for the remainder of the winter. Deep snow worsens the problem. At snow depths greater than one and one-half feet, deer find it increasingly difficult to move about freely and tend to follow previously broken trails. The quantity and quality of food which can be reached from these trails further limit nutritional intake at the very time that intense cold and difficult travel are tending to increase the deer's energy requirements. Some of this energy requirement is met by conversion of the surplus fat stored during the late summer and early autumn. Once this remaining source of energy has been depleted to a low level, the deer's chances of survival until spring are very poor. It is not surprising that those which do survive a severe winter return to their summer ranges as little more than gaunt shadows of the proud, sturdy animals they were. The green growth of spring brings welcome relief.

### Population controls

White-tailed deer are relative newcomers to much of the range they now occupy in Canada. When white men first explored the northern half of the continent they found deer in only the most southerly parts of Canada. Even in the year of Confederation their distribution was quite limited. There were no deer in Nova Scotia and they were not numerous in New Brunswick. Deer were in southern Quebec and extended some distance down the St. Lawrence River and up the Ottawa River. Although deer were numerous in southern Ontario, none had penetrated northward beyond Lake Nipissing. There were a few white-tailed deer in south central Manitoba, but most of the remainder of the Prairie Provinces was populated by only the mule deer.

It seems likely that man's activities – cutting and burning of eastern forests and curtailment of prairie fires, thus allowing brushy areas and bluffs to become established – helped the white-tailed deer to extend its range northward. (Bluffs are islands of forest vegetation which occur on the prairies and parklands.) Long-term easing of the severity of winters may have been equally important. Whatever the combination of causes, the range of the white-tailed deer extended considerably during the late nineteenth and the first half of the twentieth centuries. Extension of range and development of substantial populations have been somewhat more recent in Saskatchewan and Alberta than elsewhere in Canada.

Thus, the white-tailed deer in most of Canada is living in marginal range which it has only recently managed to invade. It is not surprising, therefore, that severe winters cause marked declines in population levels through much of the presently occupied range.

Deer in Canada are relatively free of serious diseases or parasites. In much of their range their natural predators, such as the timber wolf, coyote, bobcat, and mountain lion, have been greatly reduced in numbers and rarely exert real pressure on the deer. Free-roaming dogs do sometimes take a heavy toll, particularly in late winter when crusted snow aids the dogs but hinders the weakened deer.

Deer reproduce quickly. A healthy herd is capable of almost doubling its numbers during one favourable year. Although a series of severe winters may tend to shrink the range of the white-tailed deer in Canada, a few favourable years permit it to reoccupy the lost ground, rebuild substantial populations, and even extend its range farther northward.

### Management

Maintaining healthy stocks of white-tailed deer is primarily a matter of keeping numbers of deer in balance with their supply of winter food. Healthy deer populations grow very rapidly if the annual surplus of animals is not harvested. Overpopulation invariably leads to pressure on



